DOCUMENT RESUME

ED 317 205 IR 014 303

TITLE	Summer Telelearning for Academic Renewal. A Team-Taught Audiographic Distance Learning Program for At-Risk Eighth Graders.
INSTITUTION	Delaware-Chenango Board of Cooperative Educational Services, Norwich, NY.
PUB DATE	89
NOTE	23p.; Developed by the Telelearning Project.
PUB TYPE	Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Computer Assisted Instruction; Cooperative Learning; *Distance Education; *Dropout Prevention; Grade 8; *High Risk Students; Junior High Schools; Pilot Projects; *Program Evaluation; Remedial Programs; Team Teaching; Telecommunications; *Teleconferencing
IDENTIFIERS	*Audiographics

ABSTRACT

In July and August 1989 the Delaware-Chenango Board of Cooperative Educational Services (BOCES) piloted the Summer Telelearning for Academic Renewal (STAR) program, a telecommunications-based program aimed at reducing the potential for at-risk eighth graders to drop out of school. Students were selected for the program by their home schools on the basis of their grades and other factors suggesting that they were likely not to complete high school, including attitude, disruptive behavior, poor attendance records, and home environment. An evaluation of the program suggests that telelearning can be used with at-risk students, although a summer program may not be the most appropriate application of the medium. The STAR experience also suggests that small group activities and team teaching can be extremely helpful in molding appropriate learning behavior of at-risk students. This report describes the historical perspective and development of the program; provides overviews of the evaluation process, the team teaching approach, teacher selection methods, enrollment guidelines, and program activities; and discusses evaluation findings, including observations on group interaction of students, team teaching, and computer use by students. Evaluation forms used by students to assess the program are appended together with summaries of their responses. (GL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED317205

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Summer Telelearning for Academic Renewal

A team-taught, audiographic distance learning program for at-risk eighth graders.

Developed by The Telelearning Project
of the Delaware-Chenango Board
of Cooperative Educational Services
(BOCES)

Summer, 1989

© 1989, Delaware-Chenango BOCES Telelearning Project

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Linda R. Gorton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IR014303

BEST COPY AVAILABLE

Summer Telelearning for Academic Renewal

The Delaware-Chenango Board of Cooperative Educational Services piloted a telecommunications-based program July 5 through Aug. 1, 1989 aimed at reducing the potential of at-risk eighth graders to drop out of school. Youngsters were selected for the program by home schools on the basis of their grades and other factors such as attitude, disruptive behavior, poor attendance records and home environment that suggested they were likely not to complete high school if they continue on their present course.

An analysis of the Summer Telelearning for Academic Renewal program suggests that telelearning can be used with at-risk youngsters, although a summer program may not be the most appropriate application of the medium. The STAR experience also suggests that small group activities and team teaching can be extremely helpful in molding appropriate learning behavior of at-risk youngsters.

Historical perspective. The BOCES has operated a distance learning program since 1985, but like almost every other distance learning program, the Telelearning Project has been geared toward the highly motivated, academically successful student: Advanced placement courses and college credit courses have been offered. School superintendents, however, find relatively little need for the college-level courses but need more courses aimed at the middle/junior high school student. Audiographic instruction is virtually untested with the younger populations, and much of the distance learning literature suggests that it cannot be used with any but highly motivated students.

Audiographic equipment. The equipment used at the BOCES Telelearning Project is an audiographic system consisting of IBM computers with color monitors, graphics tablets for handwritten or drawn material, keyboards, Optel Voice-Too™ modems that permit transmission of both voice and data on a single telephone line, and speakerphones. The computer is operated with special software, also from Optel. The software allows instructors to prepare colorful graph-

Audiographic instruction is virtually untested with younger populations . . . .

ics and save them on disks before class, call them up on screen at all sites simultaneously during class and then annotate the screens. The prepared visuals can be used as "blackboards," worksheets, advance organizers, assignment sheets, etc.

Program development. The STAR program was developed almost by accident. Superintendents had asked the Telelearning Project to look into development of a summer school program with traditional course offerings. State requirements for programming rendered financially infeasible classes as small as the Optel equipment requires. The state Education Department suggested a program for at-risk youngsters as an alternative to traditional summer school programming at the junior high level.

The decision to proceed with an at-risk program was not made until the end of January, which left very little time to identify and train teachers and develop materials. On the recommendation of the BOCES Alternative Education Center, the Telelearning Project attempted to work with the Private Industry Council to place STAR students in jobs during the summer and with the Dispute Resolution Center to provide programming to supplement the STAR program. Neither of these collaborations worked out because of finances or scheduling.

Teacher selection for the program was very late, leaving the team with only the month of June to prepare for the program. Teachers were given very general information about the students — schools initially said they would pick students who had failed two classes or more — and the guideline that half of each day's session was to be on-line, half off-line. From that, and their own knowledge of curriculum and at-risk students, they attempted to develop objectives and materials for their individual presentations.

Appropriateness to population. Although the target population lacks the motivation of the traditional distance learning population, the Telelearning Project staff thought at-risk youngsters could be dealt with through the technology because:

- At-risk youngsters are often highly visual learners to whom high quality graphics have more appeal than black and white teaching materials.

- At-risk youngsters tend to be right-brain dominant, abstract thinkers who "read" graphics more readily than type, and who are out of step in traditional classrooms dominated by left-brain, sequentially thinking teachers.

- Students can't hide lack of understanding in the audiographic classroom because the only means the teacher can command to get feedback is direct questioning.

- The intensive interaction in the telelearning classroom offers many opportunities for positive feedback for students, thereby increasing their self-image and confidence in the academic classroom.

- Audiographic instruction is essentially a small group activity requiring oral communication and good interpersonal working relationships, two skills at which at-risk youngsters are notably deficient.

Evaluation. The program was to have had a formal evaluation, with written work compared against objectives and an evaluation of oral behaviors by the Telelearning Coordinator. Unfortunately, the inadequacy of the advance planning combined with technical problems, made the planned evaluation impossible. Not all teachers were able to formulate objectives in behavioral terms so they could be evaluated. End-of-session behavior counts on some measures had to be scrapped because of equipment problems in the administrative offices, that forced the evaluator to drop out of the conference for more than a quarter of three days' sessions.

Written evaluations by students of teacher behavior were conducted, using a combination of categories suggested by the students themselves and others suggested by the Telelearning Coordinator. Compilations of this data are included as an appendix to this document.

Following the last session of the program, teachers

The intensive interaction in the telelearning classroom offers many opportunities for positive feedback for students . . . .

Potential STAR teachers were put through a training program that focused on how to adapt traditional materials for audiographic instruction.

met for several hours and informally discussed the program. Their comments and suggestions have been incorporated into this paper.

Site selection. For the pilot, two Chenango County schools and two Delaware County schools were chosen. The four (Afton, New Berlin, Downsville, Delaware Academy) are schools which do not have on-site upper level summer school programs and which, with the exception of Afton, don't have access to summer school programs. In addition, each of the four districts has selected the Telelearning Project as one of its BOCES services and has on-site a set of the telelearning equipment described above.

Team teaching approach. In the "traditional" distance learning class, the teacher is alone at one site and students are at remote sites, with no more than an aide to help if there are equipment problems. Because of the potential for disruptive behavior and the need to individualize instruction, the Telelearning staff decided to use a team of teachers to present material, one teacher at each of the four sites. Ideally, the team would have had persons to teach English, social studies, math and science.

Teacher selection. Potential STAR teachers were put through a training program that focused on how to adapt traditional materials for audiographic instruction. During the 18 hours of training, four of seven applicants were chosen based on geography, the quality of their teleteaching, and the need for a mix of academic disciplines. No teacher with a science specialty applied for the program, so the academic emphasis of the team had to be revised. Teachers were selected to present math, English, social studies and science concepts, and vocational/careers concepts.

Enrollment guidelines. Following state guidelines for junior-high courses, the STAR program was designed for 20 days, three hours a morning. Schools were required to have a minimum of four students to qualify as a site for the pilot. Fewer students would have not been financially feasible, nor could they function adequately as a group for the many small

group activities the STAR materials entailed. A maximum of six students was set primarily for logistic reasons. Students have to cluster around a computer for full-class presentations and use the keyboard and graphics tablet for activities, all of which makes a group larger than six unwieldy. Also, we wanted teachers at the sites to be able to give students individual attention and adapt materials to individual needs, which would be impossible in a larger group.

We wanted teachers at the sites to be able to give students individual attention and adapt materials to individual needs.

Scheduling. The program was designed to be run between 8:30 and 11:30 a.m. weekdays for the 20 days specified by the state. Teachers were required to be at their sites from 8 a.m. until noon. We anticipated teachers would use the half hour prior to and after class to prepare their materials, but students tended to come early and/or stay late, limiting the amount teachers could do during that time. At one site, three of the four students rode a bus (which was operated for another summer program) and didn't arrive for class until 9 a.m. This caused some difficulty, since small group activities appropriate at other sites could not be used for the first presentation of the day at that site.

Half of each day's session was to be conducted off line. It took about 10 days before teachers were able to pace themselves well enough to finish all four on-line presentations by 10 a.m.

There was a break between on-line and off-line activities. Some days teachers (or students) would request an additional break from the computer screen. Teachers as well as students complained about the difficulty of concentrating for extended periods on material being presented on-line.

School expectations. Because the STAR program was hastily developed, there was not adequate time for a consensus to build between the home schools and STAR staff about the program. As the days went by, it became increasingly obvious that the STAR team did not agree on the program objectives, how much of the program should be academically oriented, and what the academic content should be. It also became clear that team members varied widely in their con-

The majority of the students were very bright, certainly in no need of remediation in the traditional sense.

cept of what an "at-risk student" is and how he/she should be treated. To oversimplify, the team members' positions ranged from thinking that the program should deal almost entirely with attitudes, to thinking that it should not deal with attitudes at all.

There was an equal lack of agreement among home school staff. Schools were provided with a checklist that employs criteria other than just grades to use in identifying students for the program, but as far as we can determine, the checklist was not used by any school. Generally, schools selected students who failed two of their eighth grade classes (or whom they expected to fail two) for the program. As the STAR program progressed, it became obvious that the majority of the students were very bright, certainly in no need of remediation in the traditional sense. (Remediation generally refers to presenting the same material again in the same way it was presented the first time.)

One school required its students to attend the program in order to get credit for eighth grade courses and enter ninth grade. Another simply urged students to attend to show they could stick with a school program. Neither attitude seemed to have as much influence on student attendance patterns or behavior as did the personality of the teacher at their site, but the home school position was seen as highly significant by the teachers. At sites where attendance was not mandatory or where school administration did not make formal first day visits to the site to state their expectations, teachers felt the program was less successful than they had hoped. This feeling was in no way related to student satisfaction, attendance or behavior.

Costs. Cost of the program was estimated at approximately $10,000, including teacher salaries ($7,600), fringe benefits, and long distance telephone charges, estimated at $1,200. (Administrative costs were not calculated in the budgeting.) Based on a full enrollment of 24 students, per student costs would have been roughly $450, making the per-student-hour

costs of the at-risk programming identical to that of a popular summer enrichment program run by BOCES.

Actual long distance costs were $1,173. Had teachers been better prepared for the program and controlled on-line time better, costs could have been reduced by 10 percent or more.

The actual per-student cost, not including fringes, was $516. School districts were charged $150 per student for the 60 hours of instruction. BOCES is picking up the remainder of the costs through grant monies. Students were responsible for their own transportation.

Overview of activities. From an observer's standpoint, the STAR classes appeared to begin very slowly. Part of the reason for the slow pace is that the presenters had to get feedback by asking directed questions of all the participants in order to develop the interaction and concentration the milieu requires. During the first few hours on-line, the instructors and students were learning to recognize each other by voice, learning the protocol that allowed them to function successfully on the system, and overcoming their anxiety about the class.

During the first few hours on-line, the instructors and students were learning to recognize each other by voice, learning the protocol that allowed them to function successfully on the system, and overcoming their anxiety about the class.

A second reason for the slow pace was a variety of technical problems that marred the first three day's sessions. The technical difficulties resulted from poorly positioned audio equipment, operator error resulting from inadequate training or inadequate technical support. Most of the problems were resolved by trial and error. Staff and students found the technical problems highly frustrating, particularly as it was obvious most of the early problems could have been eliminated by pre-session equipment testing or routine monitoring of classes.

Fortunately during the adjustment period, the material being covered was easy enough that both students and teachers experienced success. (Teachers measure success by the number of correct answers they get, students by the number they give.) The fact that students at all sites came to class early the second day

Teachers seemed to interpret the correct answers they were getting as an indication that they were teaching well, rather than as an indication that the students already knew the material.

is an indicator that they felt good about the first day, despite the technical problems.

The technical and adjustment problems were largely overcome by the end of the first three days. Teachers, however, seemed to interpret the correct answers they were getting as an indication that they were teaching well, rather than as an indication that the students already knew the material. In the subjects where responses were not cut-and-dried, within a week the students were revealing their boredom by writing *ass* and *shit* on the screen during presentations.

Another early problem was that teachers didn't have all their screens prepared and duplicated for use at each site and resorted to on-line transmission. On-line transmission time consumes four minutes per screen if there are no technical problems, and may chew up six or more minutes. While the teachers were transmitting screens, students were fidgeting.

In fairness to the teachers it must be noted that a major reason they weren't well prepared was that for half the summer they were denied access to the telelearning equipment at a school which had promised access. Teachers more than once drove 30 miles to use equipment that was not accessible.

Teachers initially also failed to observe the 50/50 split between on-line and off-line time. Each geared his/her presentation to 45 minutes. No one could concentrate on the screen material for such long periods of time. Students got restless, teachers got headaches and everyone got frustrated.

Midway through the program, several major adjustments were made:

1) Presentations were limited so all four could be completed by 10 a.m. and off-line time was devoted to assignments applying the principles taught in the early part of the morning.

2) Teachers met daily at 11:30 a.m. via telephone conference to share information about the next day's activities and assignments.

3) Teachers determined to use more challenging material for the remainder of the sessions.

Teachers determined to use more challenging material for the remainder of the sessions.

4) An outline of the day's activities was presented by the telelearning coordinator as class began. One teacher summarized the assignments at the end of the on-line presentation.

5) On-line transmission of screens was eliminated except for assignments/quiz material.

These changes met with mixed success. Generally it was easier for everyone to concentrate on the presentations and students seemed to like the faster pace. The assignments gave them a chance to work individually, whereas the on-line work was predominately group oriented. Teachers, however, did not see the assignments completed for them every day and lacked a means of evaluating how well they were teaching, which compounded the problems created by fuzzy objectives.

The conferences helped teachers appear more organized, but they did not solve the fundamental problems of lack of integration of curricular materials and lack of agreement on objectives.

The mid-course change meant that teachers had to work with even less than the limited preparation time they had had for the early days of the program. As a result, screens prepared for the end of the program tended to be predominately text screens, geared to left-brain learners rather than to the right-brain learners who composed the majority of the students. This was most evident in the math lessons, where all of the screens for basic algebra dealt with calculations and none with concepts.

Observations on academics deficits of students. People who work exclusively with at-risk students say the major problems the students experience have nothing to do with intelligence or academic ability. Our experience bears this out.

The STAR teachers began the program thinking that the students would not be very intelligent. They

Not only do they lack the writing skills to survive in school, but their language inadequacies render them incapable of employing many appropriate outlets for dealing with anger, frustration and unhappiness.

were thrown off balance by how bright the students actually were. Students could grasp complicated concepts by looking at a graphic and could describe concepts in pictures and charts. One student, who reported his home school math teacher thought he was stupid, was able to do Math I Regents algebra questions or add a dozen three digit numbers in his head.

Clearly, academic material for these at-risk students does not need to be remedial in the traditional sense of the word. All but one of the students in the group could work at his/her grade level when material was presented in the ways they learn best (typically visually) and when their accomplishments were measured through instruments they can use well.

It is equally clear that these students need extensive work to develop their communication skills. While they could perform well on traditional English class tasks, like picking out adjectives in a paragraph, when asked to describe something themselves they could think of only the simplest adjectives: big, red, cold. Not only do they lack the writing skills to survive in school, but their language inadequacies render them incapable of employing many appropriate outlets for dealing with anger, frustration and unhappiness. In many cases they act out simply because they lack the vocabulary to express in words what they feel. The audiographic classroom fosters interpersonal communication, which is extremely important for this group of students.

Observations on group interaction of students. By its nature, audiographic instruction is best suited to small groups of people and participation in a group changes — for better or for worse — the behavior of the participants.

Teachers need to be aware that in creating groups they can create monsters if they do not delineate appropriate group activities and behaviors. At one site the entire group walked out one day to get breakfast. That was not something the individual participants would have done. As one of the students remarked

about another, "She and I never even liked each other before."

Within the small groups, people emerge as leaders who might never assume leadership roles in traditional classroom settings. There is a positive, confidence-building facet to this. There can also be negative spinoffs. We saw some leaders attempt to gain attention by always answering for the group or always telling the slower student the answer. At one site, three of the four students battled for the leadership role. At another, the leader persisted in doing the slower student's work although they told him they wanted to figure things out for themselves.

Ownership issues became a disruptive factor. Depending on their relationship to their on-site teacher and their own egos, participants in a distance learning class may either give total support to the on-site teacher during his/her presentation time or attempt to undermine the presentation so as to have the teacher's total attention focused on themselves. We saw both happen. Teleteachers have to work at teaching the entire class and eliminate any references to specific sites that tend to fragment the class. This is clearly no easy task for teachers with students in front of them.

Teleteachers have to work at teaching the entire class and eliminate any references to specific sites that tend to fragment the class.

Observations on team teaching. Although teaching is easiest on the teleteacher when he/she does not have anyone else in the room, team teaching appears to have some desirable outcomes that solo teaching can't match. A team of adult teachers gives students models of positive interaction. We noticed that students mimicked teacher behaviors such as saying "please" and "thank you" and "could you please repeat that" without anyone having suggested that they do so.

For the most part these youngsters do not know that it is okay to ask for clarification of an assignment or to have an unfamiliar word written on the board. They do not know how to have a discussion, since many of them have never heard one. They do not know how to summarize their reading or a lecture. We saw students learning those skills by watching adults do them.

A team approach also gives students models of how to handle frustration and boredom.

A team approach also gives students models of how to handle frustration and boredom. Students tend to handle a technical problem, for example, with the same level of frustration exhibited by their teachers. Students whose teachers asked for short breaks when students got restless, tended to suggest a break when they got bored. Chitchat during the time when classes are being added to the conference pool gives students an inkling that at least some teachers may be human and models for them some social skills they will need when they go to be interviewed by an adult for a job, for example.

Observations on computer use by students. Students in the STAR pilot enjoyed using computers and said they would like time to work on them individually. At one site, the teacher was able to arrange for students to use the computer lab hardware and software for off-line assignments and for kids to work on if they came early or stayed after class. Three of the teachers allowed students to work with the telelearning computer when it wasn't being used for class purposes. Several of the students mastered the use of the Pendraw™ graphic creation package and created visuals to illustrate various concepts they presented to the entire class.

Teachers also said providing opportunities for students to do individual work at computers would be a valuable addition to a summer program. As one put it, "To have kids just write a word or two a day on a nice computer they know will do great graphics is like giving a kid a bite of a candy bar and saying 'Do you like this? Well, you can't have any more.' "

Individual computer use, however, is not a substitute for the telelearning environment. Computers are reactive mechanisms. The fact that their reactions are controlled and predictable provides structure, which is important to an at-risk youngster. However, the majority of the at-risk population lacks skill in interaction, dealing with people whose behaviors and reactions are not controlled and predictable. Telelearning provides a means to teach those interactive skills.

Indicators of program success. Attendance figures and anecdotal evidence suggests the STAR program touched a responsive chord in at least some of the students.

Seventeen students attended the STAR program. Mean daily attendance was 15.6. Only one student missed more than two sessions. That student also missed more than a third of the 1988-89 school year. One of the students brought a friend along to class one day. Another, who had to be away from home one day, rode his bicycle an hour to get to another site so he wouldn't miss a session.

One of the students brought a friend along to class one day. Another, who had to be away from home one day, rode his bicycle an hour to get to another site so he wouldn't miss a session.

On the whole, the level of interpersonal communication among students rose during the 20 days. More comments and questions were offered each day to the class at large or to persons at other sites by students during the latter part of the session than in the first half. Most of the remarks were procedural ("Which sheet do you want us to do?"), but several revealed the students were giving serious thought to the content of the lesson.

The telelearning coordinator, for example, led a discussion about the appropriateness of the decision of one site to go out for breakfast one day. The group agreed that it is difficult to concentrate when one is hungry and that the decision to get something to eat was not unreasonable. They also agreed that the students at other sites, the STAR teachers, and the home school administration and faculty would all have good reasons for finding the walkout unacceptable. The consensus was reached that even though a person may have perfectly valid reasons for a particular action, the action can have unpleasant consequences for him. At the end of the half hour discussion, the students who had left their site the previous session volunteered an apology.

In their evaluations, two students said they would attend the program again. A couple others made comments about their sense of accomplishment, being on time, for example, or doing well in math. While

The methodology appears to have optimum success when used for periods of an hour or less.

these are small things, they apparently were important to the students.

Future applications. In planning future applications of the audiographic medium, it will be necessary to give more close attention to certain factors. Clearly no one, at-risk student or Ph.D., can be expected to concentrate as hard as is required in telelearning for three hours. The methodology appears to have optimum success when used for periods of an hour or less, which would suggest that academic year program is perhaps more desirable than summer programming.

In any at-risk program, it is essential to have a consensus on the objectives of the program: Is it to change attitudes or is it to increase grades? Having said that, however, one should note that the two are not mutually exclusive. A program can be designed to improve student attitudes using academic content as a vehicle.

STAR students' reported in their evaluations that the "best" parts of the program were the most academic ones, math and English, although the teachers reported that students' interest was highest in the careers and social studies/science portions of the program, where the emphasis was more attitudinal than academic.

The apparent contradiction can be explained. In the math and English portions of the program there were clear standards by which students could measure their success: They could get eight of 10 answers right or have no sentence fragments in an eight sentence letter. In the other two program segments, students had no clear standards by which to measure their progress, and they faulted the teachers for failure to provide those standards. This would suggest that even if a program's objectives are to effect changes in attitudes, the students need/want objective standards: They want to be able to "see" progress.

Assessing the program, the STAR teachers suggested future programming be directed to middle school population. They suggested starting with 10-

week modules on academic topics contained within the regular curriculum. The modules would be presented by a teleteacher, with a home school teacher or aide acting as supervisor/teaching assistant. They suggested students initially be chosen by teachers/ guidance counselors or allowed to choose modules. They suggest starting either with advanced subjects, such as a unit on algebra for seventh graders, or tutorials, but allowing only those students into the modules who, if they are unsuccessful academically, are unsuccessful for reasons other than lack of academic ability. This would ensure classes that are academically capable, even though the students in them might not learn well in traditional classrooms.

In preparing material for the telecourses, more attention needs to be paid to student abilities and less to their class grades

In preparing material for the telecourses, more attention needs to be paid to student abilities and less to their class grades. We clearly underestimated our students and we suspect their regular year teachers also bored them. In developing materials, teachers need to strive to present information in ways students can grasp it, while at the same time striving to develop the students' abilities to learn from and respond in traditional academic styles. For example, teachers may have to present concepts graphically, so the students can learn them, but they need to force students to develop verbal skills so they can demonstrate their understanding in conventional ways.

The availability of competent technical support to success of any audiographic program was underscored by the STAR pilot program experience. Many of the technical difficulties which were encountered could have been prevented by routine inspections and maintenance of equipment or by pre-session testing. In the future, classes should be monitored regularly and logs kept of technical problems and adjustments. Equipment (hardware and software) should be inspected routinely. Pre-session testing of equipment should be conducted at least a week before a course starts and should include the site supervisors at all sites involved in the course. It is also essential that accurate, easy-to-use written information about the operation of the Telewriter 2™ and Pendraw™ software be

The teleteacher training and the preparation time for classes has to be greatly increased.

developed and provided to each teleteacher trainee and to each telecourse site. Information about the most appropriate speakerphone equipment for various sites and conditions also is essential. The trial-and-error adjustments while classes are in session are simply unacceptable.

Finally, and most importantly, the teleteacher training and the preparation time for classes has to be greatly increased. Teleteachers need far more training than 18 hours. The training must be done on-line, to give students realistic experience and it must include several opportunities to present via the medium. Part of the training must be in the preparation of behavioral objectives, a skill in which teachers generally appear to be lacking.

The time allowed for preparation of screens and supporting materials also must be considerably increased. Screen preparation alone takes a minimum of three to four hours for every hour on-line. The STAR experience would suggest that teachers work with an instructional product developer or, if none is available, another teacher, to determine the objectives, audience, key terms, learning modalities and instructional strategies for each screen. Detailed written lesson plans should be required showing how the screens will be used and how learning will be assessed.

For more information about this project contact:
Linda R. Gorton
Telelearning Coordinator
Delaware-Chenango BOCES
2 N. Mitchell St.
Norwich, NY 13815-1536
Telephone: (607) 336-6514

Summer Telelearning for Academic Renewal
Student's Evaluation Form

In the grid at the right below, check the grade you think this teacher ought to be given on each of characteristics of a good teleteacher. (An A is worth 4 points, B worth 3, C worth 2 and D worth 1.)

All teachers	A	B	C	D	F
Is smart, knows his/her material		3.6			
Explains work so kids can understand		3.4			
Is patient when there are technical problems		3.3			
Is friendly, cares about kids		3.5			
Is punctual, well-organized, doesn't waste time		3.3			
Maintains discipline at his/her site		3.0			
Respects kids, let's them voice their opinions		3.4			
Speaks clearly so he/she can be heard well & uses complete sentences		3.6			
Watches students & gives breaks at right times		3.1			
Makes students think		3.6			
Treats kids at all sites as part of his or her class		3.4			
Has interesting screens prepared.		3.0			
Doesn't teach stuff that's too easy or too hard		3.2			
Expects students to do their best work, doesn't let them get away with sloppy work, mumbling, not participating		3.3			
Has a sense of humor		3.4			
Tries every day to to a better teaching job than before		3.3			
Sets a good example of how to learn, how to behave, how to participate in class.		3.4			

Summer Telelearning for Academic Renewal
Program Evaluation - Student Form

As you probably know, this year is the first time anyone has every tried using telelearning with kids your age who aren't A students. We're trying to decide whether using this equipment with your group is a good idea or a bad idea. To help us decide, we are going to ask you a few questions about the whole program. We really need you to be honest, but we also need you to be very specific. No one is going to respect your opinion unless you write your answers clearly.

1) The state requires us to have 20 days of three-hour classes in the STAR program. The teachers think it is just too hard for anyone to concentrate for three hours at a stretch on the telelearning system. (That's why they cut their presentations shorter and shorter as the program went on.) They tried to give you some different kinds of activities than the on-screen activities.

In some of the sites, students could work on other computers in the off-line time. Do you like that idea? Do you think it would be easier to work for three hours if part of the time you are working at your own computer?

- Yes, I think it would be easier
- Its a good idea because people get to work on the computer so they can do what they want
- Yes I think it would be easier to work on your own computer
- I think it would be easier
- I like the Idea of Working on The Computer at offling time.
- I think if we had our own computer, than it would make the class alot more interesting.
- Yes I think that is a good idea
- Yes, it would make it more fun.
- Yes I think that would be a better Idea than just sitting here
- Yes I do (like the idea). No, not really (easier to work at own computer)
- I do like working alone on off-line time. Yes it would be easier at your own computer, but I still like it better when you can write back and forth. I really wish the teachers would have let us do more of that.
- Yes, I do like this Idea. It would be much easier to work on our own computer. It would make the time fly faster.
- I like it if they would let us work on our own computer

Responses are copied as they appear on the students' forms. Not all students responded to each question.

2) This summer we tried to have a team of teachers, each of whom specialized in one subject: English, science/social studies, math and vocational skills. Do you think having the team of teachers is good? Why? Are there some subjects you think are easier to learn over the telelearning system than others? Which ones do you think are the best for telelearning?

- I think there are some that are easier. The ones I think are the best are Miss Spendley, Mrs. Pluta.
- Yes, because you/I can listen to different people that specialize in different areas. I gets boring listeng to one teach for to long. Yes, there are but careers is the easyiest to understand.
- I think having groups was easier and, English, Math & vocational skills was easiest over the telelearning system
- having A team of teachers is OK because it's fun. Yes I think there are easier sugest over the system, they all are careers & Social Studies. English, math are the best.
- yes because It get boring with just one teacher. Yes English math and social studies.
- Yes, it's a good idea to learn from that, (a team). It's good for the soul. Social Studies is the easiest for me.
- I think it was a good idea to have a team of teachers because one teacher would get tired faster.
- I think that the Social studies was probably the most easy of them all, but it also was the most fun of all of them.
- I think a team of teachers is good because some teachers only know about one or two subjects.
- I think math and English are easier.
- Yes I think the team teacher is good. There is more fun in the program. Yes reading is easier than math.
- It's good because some others teachers might have more expeinces to what they want to teach. Yes. social studies, Math.
- Yes I think the team of teachers are okay.

3) If we were to run the STAR program again next summer, we'd like to make it possible for every person in the program to also have a paying job. Would you like that idea? Do you think if kids were told they had to come to the STAR classes to have a paying job, they would be happier about coming? Or do you think they would resent coming under those conditions?

- I think I would like to come again
- Yes, some might be happier because they want the money and some don't care.
- I think I would like to come to it again.
- I having a job know that it is very hard. If your boss is nice he will let you do both.
- I think they would resent coming under those conditions.
- I do think that they should have the STAR classes but they shouldn't be forsed to come or it would be less as populor.
- I think they would resent coming
- I don't know
- yes, yes! no I think they would come.
- I would really like the paying jobs a lot. I think kids would be happy.
- Yes, I would like a paying job. It depends on my teacher and my class-mates. I myself would resent coming under those conditions.
- I feel that they would resent coming because they would find it hard to get a job.
- I think they would be happier because of the extra money.

4) If you could make any one change in the STAR program (other than not having it at all), what would that change be?

- Not having the technical problems
- One thing that I would change is the tecnical difficalties.
- I would change the teachers except for Miss Pluta and Miss Spendley
- the computers
- not to have so many breaks
- make it shorter
- it would be shorter
- Try to let the kids make up all of the screens
- nothing
- I would want it later and cut in half at different times like 10:00 to 11:30 then 1:00 to 2:30
- To have one more break.
- They would change the hole program because sometimes you have to sit to long.
- I would change the computer to a better kind

5) What was the very best thing that happened to <u>you</u> in the STAR program? What made you feel the best?

- I met luAnn and Jenifer
- meeting all the kids and learning to talk louder to people
- that meet other people in diffent places
- I did good in math is what made me feel good
- That I was going to pass!
- nothing
- nothing
- being congragulation for being on time all the while
- I meet a new person and I larned about the program
- Nothing except meeting Adam & Terry!
- The very best thing that helped me was I have the chance to pass my grade. Most of the material was easy.
- meeting the people at the end it was like a surprise get together

6) What was the very worst thing that happened to <u>you</u> in the STAR program? What made you feel the worst?

- Leaving to go get breakfast
- Nothing made me "the worst"
- getting snapped at because the other three were missbehaving
- I got in troble by linda
- when you got the answer wrong
- having to get up early in the morning it make me grumpy
- coming
- The time it took for the screens to be trasnmited in the beginning of the program
- I went to the gathering the last day
- To much work to do
- when the boys was picking on me. And again you had to sit to long.
- I beat the shit out of the teacher

7) We tried to get you to develop skills in several areas this summer. Show which 3 skills you personally think you made the most progress in by numbering them 1, 2 and 3:

listening (4)
thinking up new ideas (1)
using sentences (2)
following directions (1)
asking questions (1)
being patient (2)
speaking clearly (3)
speaking to a group (2)
paying attention (3)
solving word problems (1)
telling the teacher if you don't understand (2)
being polite (0)
letting others speak without interrupting (2)
planning your work (0)
being organized (0)
volunteering ideas in a discussion(0)